



[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 21

[Docket No. FAA-2019-1038]

Type Certification of Unmanned Aircraft Systems

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of policy; request for comments.

SUMMARY: The Federal Aviation Administration (FAA) is announcing and requesting comments on its policy for the type certification of certain Unmanned Aircraft Systems as a special class of aircraft under our regulations.

DATES: Comments must be received on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Send comments identified by docket number FAA-2019-1038 using any of the following methods:

- ☐ Federal eRegulations Portal: Go to <http://www.regulations.gov> and follow the online instructions for sending your comments electronically.
- ☐ Mail: Send comments to Docket Operations, M-30, U.S. Department of Transportation (DOT), 1200 New Jersey Avenue, SE, Room W12-140, West Building Ground Floor, Washington, DC, 20590-0001.
- ☐ Hand Delivery of Courier: Take comments to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, S.E.,

Washington, DC, between 9 a.m., and 5 p.m., Monday through Friday, except Federal holidays.

- ☐ Fax: Fax comments to Docket Operations at 202-493-2251.

Privacy: The FAA will post all comments it receives, without change, to <http://regulations.gov>, including any personal information the commenter provides. Using the search function of the docket web site, anyone can find and read the electronic form of all comments received into any FAA docket, including the name of the individual sending the comment (or signing the comment for an association, business, labor union, etc.). DOT's complete Privacy Act Statement can be found in the Federal Register published on April 11, 2000 (65 FR 19477-19478), as well as at <http://DocketsInfo.dot.gov>.

Docket: Background documents or comments received may be read at <http://www.regulations.gov> at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE, Washington, DC, between 9 a.m., and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Andrew Guion, AIR-694, Federal Aviation Administration, Policy and Innovation Division, Small Airplane Standards Branch, Aircraft Certification Service, 901 Locust St., Room 301, Kansas City, MO 64106, telephone (816) 329-4141, facsimile (816) 329-4090.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites interested parties to submit comments on the policy described in this notice to one of the addresses specified above. Commenters must include Docket No. FAA-2019-1038 and identify “Type Certification of Unmanned Aircraft Systems” policy on all submitted correspondence. The most helpful comments reference a specific portion of the policy, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received on or before the closing date before issuing the final acceptance. The FAA will also consider comments filed late if it is possible to do so without incurring expense or delay. The FAA may change the policy based on received comments.

Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this notice contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this notice, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this notice. Submissions containing CBI should be sent to the individual identified under For Further Information Contact. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this notice.

Background

In 2012, Congress passed the FAA Modernization and Reform Act of 2012 (Pub. L. 112-95). Section 332 of Public Law 112-95 (codified at 49 U.S.C. 44802) directed the FAA to develop a comprehensive plan to safely accelerate the integration of unmanned aircraft systems (UAS) into the National Airspace System (NAS). As part of that plan, the FAA integrated small UAS (less than 55 lbs.) into the NAS by issuing a rule on the Operation and Certification of Small Unmanned Aircraft Systems (81 FR 42064, June 28, 2016). The small UAS final rule added part 107 to the FAA's regulations in Title 14 of the Code of Federal Regulations (14 CFR).

Part 107 sets forth rules for the operation of small UAS without the need for FAA airworthiness certification. Under part 107, operations may not occur over persons, at night, above an altitude of 400 feet, or beyond visual line-of-sight, without a waiver issued by the FAA. UAS weighing 55 lbs. or more and small UAS operating outside the limitations imposed by part 107 must receive airworthiness certification from the FAA or an exemption.

Discussion

The FAA establishes airworthiness criteria and issues type certificates to ensure the safe operation of aircraft in accordance with 49 U.S.C. 44701(a) and 44704. Section 44704 requires the Administrator to find an aircraft, aircraft engine, or propeller to be of proper design, material, specification, construction, and performance for safe operation before issuing a type certificate for it.

Part 21 contains the FAA's procedural requirements for airworthiness and type certification. When the FAA promulgated part 21 as part of its recodification to combine

and streamline the Civil Air Regulations, it originally required applicants for a type certificate to show that the product met existing airworthiness standards (29 FR 14562, October 24, 1964). Existing airworthiness standards for aircraft and other products, issued as a separate part of the FAA's regulations, are: normal category airplanes under part 23, transport category airplanes under part 25, normal category rotorcraft under part 27, transport category rotorcraft under part 29, manned free balloons under part 31, aircraft engines under part 33, and propellers under part 35.

The FAA amended part 21 to add procedural requirements for the issuance of type certificates for special classes of aircraft at amendment 21-60. In the final rule, the FAA explained that it intended the special class category to include, in part, those aircraft that would be eligible for a standard airworthiness certificate but for which certification standards do not exist due to their unique, novel, or unusual design features. The FAA further stated that the "decision to type certificate an aircraft in either the special class aircraft category or under ... the FAR is entirely dependent upon the aircraft's unique, novel, and/or unusual design features." (52 FR 8040, March 13, 1987). Amendment 21-60 revised § 21.17(b) to include the certification procedure for special classes of aircraft. For special classes of aircraft, for which airworthiness standards have not been issued, the applicable airworthiness requirements will be the portions of those existing standards contained in parts 23, 25, 27, 29, 31, 33, and 35 found by the FAA to be appropriate for the aircraft and applicable to a specific type design, or such airworthiness criteria as the FAA may find provide an equivalent level of safety to those parts.

An "unmanned aircraft" is an aircraft operated without the possibility of direct human intervention from within or on the aircraft. See 49 U.S.C. 44801(11); 14 CFR 1.1.

Unmanned aircraft include all classes of airplanes, rotorcraft, and powered-lift without an onboard pilot. . Many UAS elements, while essential for safe operation, are part of the UAS system but are not permanent features of the unmanned aircraft (UA). For example, instead of traditional landing gear with wheels and brakes, many UAS have a launch and recovery system. Additionally, because the pilot is not situated within the aircraft, unique configurations and applications of airframes, powerplants, fuels, and materials are possible and can result in flight characteristics different from those of conventional aircraft. These features specific to UAS are the very unique, novel, and/or unusual features the special class category was designed to accommodate.

Policy

Accordingly, the FAA proposes that some UAS may be type certificated as a “special class” of aircraft under § 21.17(b). The FAA proposes to issue type certificates for UAS with no occupants onboard under the process in § 21.17(b). However, the FAA may still issue type certificates under § 21.17(a) for airplane and rotorcraft UAS designs when appropriate. This proposed policy applies only to the procedures for the type certification of UAS, and is not intended to establish policy impacting other FAA rules on unmanned aircraft, such as operations, pilot certification, or maintenance.

The FAA will announce and seek public comment on the particularized airworthiness criteria for each applicant as certification standards for this new special class evolve. Once generally-applicable standards are identified, the FAA intends to issue rulemaking or publish the standards as guidance in an Advisory Circular, as it has done for other special classes such as gliders, airships, and very light airplanes.

The FAA's rulemaking on small UAS was only the first step in the FAA's plan to integrate UAS into the NAS. Many long-term activities are required for full integration of present and future UAS operations, including the delivery of packages and transportation of people. The UAS affected by this policy will include those used for package delivery. Future FAA activity, through either further policy or rulemaking, will address type certification for UAS carrying occupants.

The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies.

Issued in Kansas City, Missouri on January 27, 2020.

Pat Mullen,

Manager, Small Airplane Standards Branch, AIR-690,

Policy and Innovation Division,

Aircraft Certification Service.

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